



## A new methodology

Software technology has advanced swiftly in the last three years. As we move forward with a new vendor we will be able to take advantage of the newest cutting-edge tools that will boost the speed and improve the usability of ZIMS. ISIS will directly oversee the completion of ZIMS using a different methodology than has been used - an agile development methodology called Extreme Programming, described below. We will hire the subcontractors on a time-and-materials basis rather than on a fixed price. This will boost collaboration, interactivity and response times.

**Extreme Programming** is a newer, highly disciplined approach to software development that has delivered exceptional quality products worldwide. It's a departure from traditional software development methods in that it values smaller, faster-working teams in close interactive contact and collaboration with the client. ISIS will have several of these small teams operating. Extreme Programming relies on constant feedback and testing at each stage of development. It reduces bureaucracy, increases the agility of the development team and produces high quality products in shorter times.

The Extreme Programming process begins with a **work package** which defines the exact piece of functionality that a team of two developers will work on. That work package is finished (including full testing) in a brief time period called a **sprint**. Each sprint lasts six weeks, beginning with a kickoff planning meeting and ending with a working, completely tested and finished **build**. This is a different use of the term "build" than ISIS has used in the previous methodology - in this use we are talking about a finished, smaller segment of the software, rather than the next "draft" of the entire application with bugs remaining to be fixed at a later time. When enough pieces have been completed to deliver a certain level of functionality in specific areas, they are bundled into a **release**. A release is made up of multiple builds and work packages. Software may be released in stages as sections of functionality are finished and added to the software package.

As we move into this strategic change in the final phase of ZIMS development, we focus on the four key words in Extreme Programming: **communication, simplicity, feedback, and courage**.

